



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/510,967 | 10/12/2004 | George W. Kay | K0487-7006US | 6146 |
| 37462 | 7590 | 11/23/2005 | EXAMINER | |
| LOWRIE, LANDO & ANASTASI RIVERFRONT OFFICE ONE MAIN STREET, ELEVENTH FLOOR CAMBRIDGE, MA 02142 | | | THOMAS, COURTNEY D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2882 | |

DATE MAILED: 11/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/510,967

Applicant(s)

KAY, GEORGE W.

Examiner

Courtney Thomas

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/31/05; 04/14/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1, 2 and 47 are objected to because of the following informalities:
2. Claim 1 recites a radiation-recording plate, but fails to indicate whether the exposure incident on the plate is radiation exposure. For clarity, Examiner suggests claim 1, line 2 be rewritten as follows: "...arranged to form an image upon radiation exposure ..." (see also claim 1, line 3 and subsequent lines).
3. Claim 2, line 1 recites: "the radiation." Examiner notes there is no antecedent basis for the use of this term (see also claim 47, line 5)
4. The claims have not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the claims.
5. Appropriate correction is required.

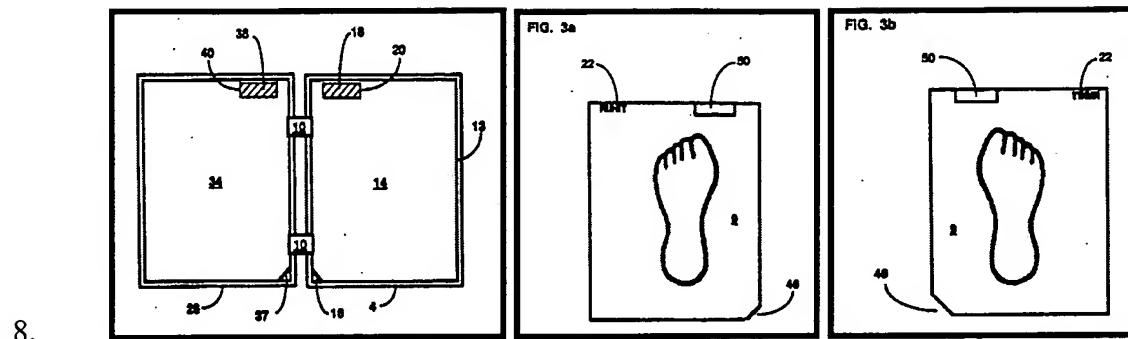
Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 9-15, 18-20, and 34-52 rejected under 35 U.S.C. 102(b) as being anticipated by Fabian (U.S. Patent 5,123,040).



Figures 2, 3a, 3b – U.S. Patent 5,123,040 to Fabian

9. As per claim 1, Fabian discloses a radiation recording plate (2) constructed and arranged to form an image upon exposure from both a front side and a back side (14, 34), the plate including a marker (22) detectable in the image after exposure and indicative of which of the two sides the plate is exposed from (see also Figs. 2, 3a, 3b, above).

10. As per claim 2, Fabian discloses a radiation recording plate, wherein the marker comprises a medium opaque to the radiation and coating a region that does not interfere with reading the image when the plate is exposed from either side (see Figs. 3a, 3b; column 4, lines 24-36).

11. As per claims 9-15, Fabian discloses a radiation recording plate, wherein the marker (22) comprising a back side marker whose appearance in an image on the plate indicates exposure from the back side (column 4, lines 24-36); wherein the marker comprises a material that attenuates exposure of the plate in a defined region (see Figs. 3a, 3b, above).

12. As per claims 18-20, Fabian discloses a radiation recording plate, wherein the marker (22) comprising a front side marker whose appearance in an image on the plate indicates exposure from the back side (column 4, lines 24-36); wherein the marker comprises a material that attenuates exposure of the plate in a defined region (see Figs. 3a, 3b, above).

Art Unit: 2882

13. As per claims 34-40, Fabian discloses a method of identifying a side from which a radiation recording plate has been exposed to radiation comprising the steps of a) incorporating in the plate, in a position that does not interfere with an image area, a marker whose appearance in the image identifies which side the plate is exposed from, b) exposing the radiation plate and c) observing the image for identification of the side of the plate exposed and d) arranging the marker to indicate rotational orientation of the plate and observing the image for the indication of the rotational orientation of the plate (column 4, lines 24-45; see Figs. 2, 3a, 3b above).

14. As per claims 41-46, Fabian discloses a method of identifying a side from which a radiation recording plate has been exposed to radiation comprising the steps of a) incorporating in the plate, in a position that does not interfere with an image area, a marker whose appearance in the image identifies which side the plate is exposed from, b) exposing the radiation plate and c) observing the image for identification of the side of the plate exposed and d) arranging the marker to indicate rotational orientation of the plate and observing the image for the indication of the rotational orientation of the plate (column 4, lines 24-45; see Figs. 2, 3a, 3b above).

15. As per claims 47-52, Fabian discloses an image storage device comprising a recording medium (9) a data structure defined by a record in the recording medium of an image produced by exposure of a radiation sensitive medium to radiation and a mark (22) embedded in the data structure (see Figs. 2, 3a, 3b, above).

Claim Rejections - 35 USC § 103

16. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2882

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

17. Claims 3-8, 16, 17, and 21-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fabian (U.S. Patent 5,123,040)

18. **As per claims 3-5, 16, 17, 21 and 22**, Fabian discloses a radiation recording plate as recited in claim 2, but does not explicitly disclose **a)** a plate wherein the medium comprises one of a heavy element, an alloy including a heavy element a compound including a heavy element or a salt of a heavy element, **b)** the medium being one of Pb (Lead), Sn (Tin), Bi (Bismuth) or I (Iodine) and **c)** the medium comprising a heavy metal suspended in a binder applied to a region of the plate.

19. Fabian teaches that Pb (Lead) or other high atomic number materials are known to significantly attenuate X-ray radiation (column 3, lines 53-54). Fabian also teaches that the disclosed marker may comprise an X-ray opaque material provided in a binder such that the symbol is visible subsequent irradiation (column 2, lines 2-8; column 4, lines 25-26, 33-36; see also Figs. 3a, 3b above).

20. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the radiation recording plate of Fabian such that it incorporated a marker comprising a heavy element, such as Pb (Lead) suspended in a binder applied to a region of the plate. One would have been motivated to make such a modification for the purpose of creating a plate with recognizable markings subsequent radiation exposure as taught by Fabian (column 4, lines 25-26, 33-36; see also Figs. 3a, 3b above).

21. **As per claims 6-8 and 23-33**, Fabian discloses a radiation recording plate as recited in claim 1, but does not explicit disclose **a)** the marker having bilateral asymmetry about at least

Art Unit: 2882

one axis, b) horizontal asymmetry and c) vertical asymmetry relative to a normal image orientation.

22. Fabian teaches a radiation recording plate including a marker having chiral asymmetry (Figs. 3a, 3b above; column 4, lines 24-28). Fabian teaches that the purpose of employing a marker with asymmetry is to enable a technologist to be able to distinguish from a radiograph which side of a patient is being viewed (column 1, lines 60-68, column 2, lines 1-8).

23. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the radiation recording plate of Fabian such that it incorporated a marker having bilateral asymmetry, horizontal asymmetry or vertical asymmetry. One would have been motivated to make such a modification for the purpose of enabling a technologist to be able to distinguish from a radiograph which side of a patient is being viewed as taught by Fabian (column 1, lines 60-68, column 2, lines 1-8; see Figs. 3a, 3b above).

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: **U.S. Patent 2,426,286 to Stadler** discloses a Dental X-ray Film Identifier, comprising an identification key to identify a patient and to avoid confusing an area on the right side of a patient's mouth with a corresponding area on the left side of the patient's mouth (column 1, lines 1-11).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney Thomas whose telephone number is (571) 272-2496. The examiner can normally be reached on M - F (9 am - 5 pm).

Art Unit: 2882

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571) 272 2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink that reads "Courtney Thomas". The signature is written in a cursive, flowing style.

Courtney Thomas
Examiner
Art Unit 2882